Remarks

In this amendment, claims 1 has been amended. Claims 1, 7, 9-11, 17, 19, and 20 are pending in this application.

§103 Rejections

Claims 1, 7, 9-11, 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,361,163 to Fowlkes ("Fowlkes") in view of U.S. Patent 5,829,895 to Hayashi ("Hayashi"). Independent claim 1 has been amended to further describe the nature of maintenance operations in connection with the present invention.

Applicants traverse this rejection because the asserted references, alone or together, do not disclose or suggest all of the features recited in the rejected independent claims claims 1 and 11. In particular, the references do not include a description or suggestion of periodically switching between two print heads during a maintentance operation in order to maintain continuous high speed processing. Even if Applicants concede that the two asserted references may be combined, the combination still fails to describe or suggest all of the claimed features.

For purposes of this discussion, Applicants will concur that the maintenance operations of wiping and purging from Hayashi may be combined with the dual print head printing mechanism described in Fowlkes. Further, Applicants submit that since Fowlkes describes using drop-on-demand ink jet print heads, that such a combination of references may not even be necessary, since the need for maintenance operations is a well known limitation of drop-on-demand ink jet print heads. Typically, these maintenance operations only need to be done after hundreds, or thousands of print operations, and only take a few seconds. (See specification, pages 4-5). Accordingly, for systems such as described in Fowlkes or Hayashi, the maintenance operations can be performed at start-up, between jobs, or so rarely that they are of little inconvenience. It is only at higher speeds, and continuous operation of a large mail processing system that the limitations become important, and potentially preclude operation at desired speeds and throughputs. (Id.)

A combination of the Fowlkes and Hayashi, as asserted by the Examiner, would describe a system that could have two print heads. That system would describe switching from using one print head to the other print head based on the following circumstances: (1) when a different receiver medium is desired to be printed on and (2) when one print head malfunctions.

This is in contrast to the claimed system and method where switching is based on a "periodic ink jet maintenance operation." By having both print heads available, continuous high speed, high throughput processing can be achieved. Unlike the asserted references, in the claimed system "subsequent to a maintenance operation the first print head is in a condition to return to service."

Assuming that Fowlkes expressly includes a concept of maintenance operations on the print heads, there is still no teaching or suggestion in the asserted references that switching between print heads is triggered by the maintenance operations. The reason is that neither Fowlkes nor Hayashi address the needs of a "continuous high velocity mail piece processing system" as recited in the preamble of claim 1, and in those asserted references maintenance operations are a non-factor.

Contrary to some of the Examiner's assertions, a malfunction, as described in Fowlkes, is not analogous to a maintenance operation, for the purpose of causing switching. The following are some reasons why: (1) The specification for the present invention defines what maintenance operations are on pages 4 and 5, and they clearly are different than malfunctions.; (2) maintenance operations are "periodic," as recited in the claims, unlike a malfunction; and (3) a malfunctioning print head cannot perform the step of "returning the print head removed from service back into service after performing the maintenance operations" (claim 11).

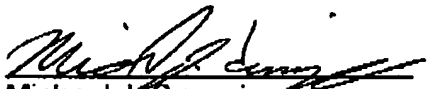
It is further submitted that dependent claims 9 and 19 include features that would further distinguish over the asserted references. Those claims describe a particular scheme for sensing and timing of the print heads based on the periodic maintenance cycle. Since the combined asserted references do not switch based on the periodic maintenance cycle, there is clearly no teaching or suggestion of this more detailed implementation.

Accordingly, it is respectfully submitted that independent claims 1 and 11 dependent claims 9 and 19, along with their dependent claims 7, 10-11, 17 and 20 should be found allowable in view of these arguments presented above.

Conclusion

In view of the amendments and remarks, it is respectfully submitted that the claims of this application are now in a condition for allowance and favorable action thereon is requested. Examiner is invited to contact the undersigned representative with any questions or suggestions to avoid filing of an Appeal in this application.

Respectfully submitted,



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